



## [19]

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This invention is a system that monitors many performance parameters and many aircraft operational parameters, and broadcasts this information along with aircraft identification, audio, video, global positioning and altitude data, to a world-wide two-way if network. This information is monitored and recorded at a remote, centralized location. At this location, this information is combined with archived data, ATC data, weather data, topological data, map data, and manufacturer's data. Analysis of this combined data allows identification of aircraft and provides a wide range of information and advisories are generated: maintenance, safety of flight, flight efficiency, flight separation, safe to fly and safe to take off. In the event of a crash the remotely recorded data provides an instant indication of the cause of the crash as well as where the crashed plane can be found. Use of this invention allows replacement of the current, on-board flight data recorders thus saving costs and weight. Having the recorded data at a remote site eliminates the need to search for flight data recorders. Other advantages are back-up for ATC radar data, better control of air traffic, improved flight efficiency, and allowing use of simpler and lower power radar.

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[51] Int. Cl.<sup>6</sup> ..... G06F 19/00

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340/945

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701/120, 301; 340/945, 961, 963, 971;  
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## 3 Claims, 4 Drawing Sheets

